



Docket No.: CIT/K-0108

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re Application of

Jin Soo LEE and Hyeon Jun KIM

Application No.: 09/495,250

Confirm. No.: 4616

Filed: 10/9/2003

For: METHOD OF SEARCH MULTI-MEDIA DATA

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Group Art Unit: 2172
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Examiner: Isaac M. Woo
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Customer No.: 34610
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REQUEST FOR REINSTATEMENT OF APPEAL

U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop Appeal Brief-Patents
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

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OCT 27 2003

Technology Center 2100

Sir:

The Appellants hereby request reinstatement of Appeal in accordance with 37 C.F.R. § 1.194(b)(2)(ii). Submitted herewith in triplicate is Appellant(s) Supplemental Appeal Brief in support of the Appeal Brief filed May 5, 2003, which was in support of the Notice of Appeal filed March 5, 2003.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Docket No.: CIT/K-108

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

In re Application of

Jin Soo LEE and Hyeon Jun KIM



Serial No.: 09/495,250

: Group Art Unit: 2172

Confirm. No.: 4616

: Examiner: Isaac M. Woo

Filed: January 31, 2000

For: METHOD OF SEARCHING MULTIMEDIA DATA

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SUPPLEMENTAL APPEAL BRIEF

OCT 27 2003

Mail Stop Appeal Brief Patents
Commissioner for Patents
Alexandria, Virginia 22313-1450

Technology Center 2100

Sir:

This Supplemental Appeal Brief is submitted in response to the non-final Office Action dated July 18, 2003. This non-final Office Action reopened prosecution after the filing of an Appeal Brief on May 5, 2003. The Appeal Brief filed May 5, 2003 was in support of the Notice of Appeal filed March 5, 2003.

REAL PARTY IN INTEREST

The party in interest is the assignee, LG Electronics Inc.

RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

STATUS OF THE CLAIMS

Claims 1, 2, 4-11, 13, 14, and 21-26 are pending. Claims 1-2 and 4-11 were allowed in the non-final Office Action dated July 18, 2003. Claims 1-2, 4-10, and 13-14 were amended and claims 3, 12, and 15-20 were cancelled by way of the Amendment filed on August 19, 2002.

STATUS OF AMENDMENTS

All Amendments filed in this application have been entered. A correct copy of appealed claims 13-14 and 21-26, including all entered amendments thereto, appears in the attached Appendix.

SUMMARY OF THE INVENTION

Embodiments of the present invention relate to a method comprising and incorporating weight information of features and weight information of feature elements (e.g. claims 13-14). Digital images (e.g. such as images produced by a digital camera) are increasingly popular. One advantage of digital images is that they can be stored electronically in a memory device and viewed on a monitor without the necessity of a user paying for photographic developing costs. Accordingly, users may tend to take more digital pictures than photographic film pictures.

Often, these digital pictures are saved in large quantities on computers. There is often a necessity or desire for a user to search for a digital picture on a computer, which can be accomplished manually.

Alternatively, digital image signal processing may be utilized to automatically search for a digital picture based on search criteria. Determining the search criteria may be an important factor in the accuracy and speed of searching for digital images through digital image signal processing (specification, page 1, lines 9-20). Accordingly, rapid and effective image searching may be performed by adjusting weights of both features and feature elements to reflect a user preferences. Feature elements may be subcategories of features and may be used to acquire a refined search of images (specification, page 28, lines 5-11).

Other embodiments of the present invention recite either a method or apparatus comprising: Inputting a first image that is similar to a target image. Inputting a second image that is dissimilar to the target image. Correlating the first image and second image to construct a search criteria (claims 21-26). In embodiments, by correlating a similar image to a target image and a dissimilar image to a target image to construct a search criteria, rapid and effective image searching can be accomplished (specification, page 28, lines 5-11).

ISSUES

1. Whether the Examiner erred in the rejection of claims 13 and 14 under 35 U.S.C. § 102(e) because Kuperstein et al. (U.S. Patent No. 6,128,398) does not disclose

incorporating weight information of features and weight information of feature elements.

2. Whether the Examiner erred in the rejection of claims 21-26 under 35 U.S.C. § 103(a) because Binns (U.S. Patent No. 6,041,140) teach or suggest correlating a first image that is similar to a target image and a second image that is dissimilar to the target image to construct a search criteria.

GROUPING OF THE CLAIMS

Appealed claims 13-14 form a single group and stand or fall together. Appealed claims 21-26 form a single group and stand or fall together.

THE ARGUMENT

Issue 1:

A *prima facie* case of anticipation has not been established in the rejection of claims 13 and 14 under 35 U.S.C. § 102(e) because Kuperstein et al. does not disclose incorporating weight information of features and weight information of feature elements.

To establish a *prima facie* case of anticipation under 35 U.S.C. § 102, a single prior art reference must describe each and every element as set forth in the subject claim. *Verdegaal Bros.*

v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Also see M.P.E.P. § 2131.

Claims 13 and 14 recite a method comprising incorporating weight information of features and weight information of feature elements.

Kuperstein et al. relates to a system, method and application for the recognition, verification and similarity ranking of facial or other object patterns. In column 3, lines 5-8, it is disclosed that "...each weight set comprises a plurality of weights which correspond to each element in the feature set..." Additionally, in column 6, lines 23-25 of Kuperstein et al., it is disclosed that "...assigned reference weights comprise a...weight vector..." However, unlike the recitations of claims 13 and 14, there is not disclosure in Kuperstein et al. as incorporating weight information of features and weight information of feature elements. This is evident and apparent, as a weight vector or any other container of weight information disclosed in Kuperstein et al. is not itself weighted.

Accordingly, a *prima facie* case of anticipation has not been established under 35 U.S.C. § 102 for the rejection of claims 13 and 14, as Kuperstein et al. does not describe each and every element set forth in claims 13 and 14. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, the identical invention is not shown in Kuperstein et al. in as complete detail as is contained in claims 13 and 14. *Richardson v. Suzuki*

Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). At least for these reasons, a *prima facie* case of anticipation has not been established.

Issue 2:

A *prima facie* case of obviousness has not been established in the rejection of claims 21-26 under 35 U.S.C. § 103(a) because Binns et al. does not disclose correlating a first image that is similar to a target image and a second image which is dissimilar to the target image to construct a search criteria.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Second, there must be some suggestion or motivation in the references themselves to modify the references or to combine reference teachings. Third, there must be a reasonable expectation of success for the modification or combination of references. The teaching or suggestion to make the modification or combination of prior art and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). There must be particular findings as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge to the claimed invention to combine or modify references. *In re Kotzab*, 217 F.3d 1365, 55 U.S.P.Q.2d 1313 (Fed. Cir. 2000). Conclusory statements cannot be relied up for particular combinations of prior art and specific claims. *In re Lee* 277 F.3d 1338, 61U.S.P.Q.2d 1430

(Fed. Cir. 2002).

Claims 21-26 recite correlating a first image that is similar to a target image and a second image which is dissimilar to the target image to construct search criteria.

Binns et al. relates to an apparatus for interactive image correlation for three dimensional image production. The July 18, 2003 Office Action states in the bottom of page 4 that “Binns does not...disclose the dissimilar of image.” The Office Action compensates for this inadequacy of Binns et al., by merely stating on page 5 of the Office Action that “...it would have been obvious a person having ordinary skill in the art the time invention was made to include the dissimilar of image in the system of Binns to distinct the difference of images. Because the dissimilarity of images provides the improved images searching method with the similarity of images.” However, the substance of this statement on page 5 of the Office Action is not disclosed in Binns et al.

Accordingly, a *prima facie* case of obviousness has not been established under 35 U.S.C. § 103, because Binns et al. does not teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Further, the statement by the Examiner on page 5 of the Office Action is a conclusory statement and cannot be relied upon for modification of Binns et al. to teach the recitations of claims 21-26. *In re Lee* 277 F.3d 1338, 61U.S.P.Q.2d 1430 (Fed. Cir. 2002). At least for these reasons, a *prima facie* case of obviousness has not been established.

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CONCLUSION

The Appellants respectfully request the Honorable Board of Appeals and Interferences of the U.S. Patent and Trademark Office to withdraw the rejections of claims 13, 14, and 21-26 because neither a *prima facie* case of anticipation nor a *prima facie* cases of obviousness has not been established under 35 U.S.C. § 102 or 35 U.S.C. § 103.

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APPENDIX

13. A method of constructing a multimedia data comprising:
incorporating a feature information including feature and feature elements of an image; and
incorporating a weight information including weight information of said features and weight information of said feature elements.

14. A method of claim 13, wherein the feature and the feature elements are represented by an image characteristic structure comprising:
a global information which represents a feature of a whole image; and
a spatial information which represents a feature of an image region, wherein the image characteristic structure further comprises a weight information which represents the importance of the global information and the spatial information.

21. A method comprising:
searching for a target image based on search criteria, wherein searching for the target image comprises:
inputting a first image that is similar to the target image;
inputting a second image that is dissimilar to the target image; and
correlating the first image and the second image to construct the search criteria.

22. The method of claim 21, wherein the correlating comprises:
identifying a feature that is common between the first image and the second image;
and
decreasing the weight of the identified feature in the search criteria.

23. The method of claim 21, wherein the correlating comprises:
identifying a feature that is not common between the first image and the second
image; and
increasing the weight of the identified feature in the search criteria.

24. An apparatus configured to:
search for a target image based on search criteria, wherein searching for the target
image comprises:
inputting a first image that is similar to the target image;
inputting a second image that is dissimilar to the target image; and
correlating the first image and the second image to construct the search criteria.

25. The apparatus of claim 24, wherein the correlating comprises:
identifying a feature that is common between the first image and the second image;
and

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decreasing the weight of the identified feature in the search criteria.

26. The apparatus of claim 24, wherein the correlating comprises:

identifying a feature that is not common between the first image and the second image; and

increasing the weight of the identified feature in the search criteria.